CLAIMS:

1. A radio-frequency identification (RFID) tag comprising:

a main antenna tuned to a first resonant frequency; and

switching circuitry that dynamically changes the resonant frequency of the main antenna.

2. The RFID tag of claim 1, further comprising a capacitive element, wherein the switching circuitry selectively electrically couples the capacitive element to the main antenna to change the resonant frequency of the main antenna.

3. The RFID tag of claim 2, wherein the switching circuitry couples the capacitive element in parallel with the main antenna to reduce the resonant frequency of the main antenna.

4. The RFID tag of claim 2, wherein the capacitive element comprises one of a capacitor, a diode, and a transistor.

5. The RFID tag of claim 1, further comprising an inductive element, wherein the switching circuitry selectively electrically couples the inductive element to the main antenna to dynamically change the resonant frequency of the main antenna.

6. The RFID tag of claim 1, further comprising:

a first conductive trace of a first length; and

a second conductive trace of a second length, wherein the first length is greater than the second length, and further wherein the switching circuitry selectively couples the first conductive trace or the second conductive trace to the main antenna to change the resonant frequency of the main antenna.

7. The RFID tag of claim 1, wherein the switching circuitry comprises a microelectromechanical system (MEMS) switch that selects different electrical elements to change the resonant frequency.

8. The RFID tag of claim 1, wherein the switching circuitry comprises a capacitive switch that changes the resonant frequency of the main antenna based upon a stored charge.

9. The RFID tag of claim 1, further comprising a sensing circuit to sense an amount of electromagnetic coupling with a neighboring tag, wherein the switching circuit selectively increases or decreases the resonant frequency of the main antenna based on the sensed amount of electromagnetic coupling.

10. The RFID tag of claim 9, wherein the switching circuitry comprises a transistor that turns on when a current in the sensing circuit exceeds a threshold value.

11. The RFID tag of claim 10, wherein the switching circuitry further comprises a first resistor and a second resistor arranged to realize a voltage divider to regulate the threshold value at which the transistor turns on.

12. The RFID tag of claim 1, further comprising a sensing antenna tuned to a second resonant frequency, wherein the switching circuitry changes the resonant frequency of the main antenna based on an amount of current induced within the sensing antenna.

13. The RFID tag of claim 12, wherein the main antenna and the sensing antenna are coplanar.

14. The RFID tag of claim 12, wherein the sensing antenna is tuned to approximately 13.56 megahertz (MHz) and the main antenna is tuned to approximately 20 MHz.

15. The RFID tag of claim 1, wherein the switching circuitry automatically changes the resonant frequency of the main antenna upon application or removal of a radio frequency field to the RFID tag.

16. The RFID tag of claim 1, further comprising an RFID integrated circuit electrically coupled to the main antenna that stores information of an associated article and communicates the information to an RFID reader via the main antenna.

17. A method comprising:

operating a main antenna of a radio frequency identification (RFID) tag at an associated resonate frequency; and

dynamically changing the resonant frequency of the main antenna.

18. The method of claim 17, wherein dynamically changing the resonant frequency comprises selectively coupling a capacitive element to the main antenna to selectively increase or decrease the resonant frequency of the main antenna.

19. The method of claim 18, wherein the capacitive element comprises one of a capacitor, a diode, and a transistor.

20. The method of claim 17, wherein dynamically changing the resonant frequency comprises selectively coupling an inductive element to the main antenna to change the resonant frequency of the main antenna.

21. The method of claim 17, wherein dynamically changing the resonant frequency comprises selectively coupling a first conductive trace of a first length or a second conductive trace of a second length to the main antenna to change the resonant frequency of the main antenna.

22. The method of claim 17, further comprising:

sensing an amount of electromagnetic coupling between the RFID tag and a neighboring RFID tag; and

dynamically changing the resonant frequency associated with the main antenna based on the sensed amount of electromagnetic coupling.

23. The method of claim 17, wherein the RFID tag includes a sensing antenna having a resonant frequency different from the resonant frequency associated with the main antenna, and dynamically changing the resonant frequency comprises dynamically changing the resonant frequency associated with the main antenna when a current induced in a sensing antenna exceeds a threshold value.

24. The method of claim 23, wherein the resonant frequency of the sensing antenna is tuned to approximately 13.56 megahertz (MHz) and the resonant frequency of the main antenna is tuned to approximately 20 MHz.

25. The method of claim 17, wherein dynamically changing the resonant frequency comprises dynamically changing the resonant frequency of the main antenna upon application or removal of a radio frequency field to the RFID tag.

26. A radio frequency identification (RFID) system comprising:

an RFID interrogation device;

an RFID tag associated with an article, wherein the interrogation device interrogates the RFID tag to obtain information regarding the article; and

a computing device to process the information retrieved from the RFID interrogation device,

wherein the RFID tag includes a main antenna tuned to a first resonant frequency, an integrated circuit electrically coupled to the main antenna that stores information of the associated article, and switching circuitry that selectively couples one or more elements to the main antenna to adjust the resonant frequency of the main antenna.

27. The system of claim 26, wherein the one or more elements includes a capacitive element, and the switching circuitry selectively couples the capacitive element to the main antenna.

28. The system of claim 27, wherein the switching circuitry selectively couples the capacitive element in parallel with the main antenna to reduce the resonant frequency of the main antenna.

29. The system of claim 27, wherein the capacitive element comprises one of a capacitor, a diode, and a transistor.

30. The system of claim 26, wherein the one or more elements includes an inductive element, and the switching circuitry selectively couples the inductive element to the main antenna.

31. The system of claim 26, wherein the one or more elements includes a first conductive trace of a first length and a second conductive trace of a second length, and the switching circuitry selectively couples the first conductive trace or the second conductive trace to the main antenna.

32. The system of claim 26, wherein the switching circuitry comprises one of a microelectromechanical system (MEMS) switch and a capacitive switch.

33. The system of claim 26, further comprising a sensing circuit to sense an amount of electromagnetic coupling with a neighboring RFID tag, wherein the switching circuit selectively couples the one or more elements to the main antenna based on the sensed amount of electromagnetic coupling to selectively increase or decrease the resonant frequency of the main antenna.

34. The system of claim 33, wherein the sensing circuit comprises a sensing antenna tuned to a second resonant frequency different from the first resonant frequency, and the switching circuitry selectively couples the one or more elements to the main antenna when the current in the sensor antenna exceeds a threshold value.

35. The system of claim 34, wherein the switching circuitry comprises a transistor that turns on when the current in the sensing antenna exceeds the threshold value.

36. The system of claim 35, wherein the switching circuitry further comprises a first resistor and a second resistor arranged to realize a voltage divider to regulate the threshold value at which the transistor turns on.

37. The system of claim 33, wherein the main antenna and the sensing antenna are coplanar.

38. The system of claim 33, wherein the sensing antenna is tuned to approximately 13.56 megahertz (MHz) and the main antenna is tuned to approximately 20 MHz.

39. The system of claim 26, wherein the switching circuitry automatically changes the resonant frequency of the main antenna upon application or removal of a radio frequency field to the RFID tag.